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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,765	02/05/2002	Kuang Hui Hung	MR1957-639	2425

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EXAMINER

LEE, CHEUKFAN

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/062,765

Applicant(s)

HUNG, KUANG HUI

Examiner

Cheukfan Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-3 are pending. Claim 1 is independent.

2. Claims 1-4 are objected to because of the following:

In claim 1, line 6 of the claim, "two slits sets" should read – two slit sets --.

Claims 2-4 are objected to as being dependent upon the objected claim 1.

3. The specification is objected to for the reasons given below.

The object of the invention is to provide "a mechanical switching apparatus for resolution adjustment". See title of the invention and page 2, lines 8-10. However, the specification does not provide support for resolution adjustment or details on how resolution is adjusted. Resolution adjustment is claimed in claim 1 and thus the claims 2-4 depending on claim 1. While it is clear how the number of slits is switched to by operating the mechanical switch (3), it is unknown as to how resolution is adjusted. Thus, the specification does not provide adequate description to enable one of ordinary skill in the art to use the invention.

The specification describes the mechanical switching apparatus, how the switching of the switch (3) changes the number of slits (51 or 52) of the rotational plate (5) in the first embodiment (corresponding to claim 2), and how the switching of the switch (3) changes between two rotational plates (53 and 54), one of which contains a different number of slits than the other, in the second embodiment (corresponding to claim 3). The specification states the following:

"The contact wheel 22 has a scanning carriage 20 facing the window 21. The contact wheel 22 is linked with a rotational plate 5 through a gear set 23." Page 4, lines 7-9.

"In the first embodiment, the rotational plate 5 has a first slit set 51 with four slits and used for low resolution scanning, and a second slit set 52 with eight slits and used for high resolution scanning." Page 4, lines 14-17.

"Figs. 3 and 4 depict the operation of low-resolution scanning, wherein the light emitted from the light emitter 41 passes through the slit set with smaller slit number and is then received by the light receiver 42." Page 4, lines 18-20.

"Figs. 5 and 6 depict the operation of high-resolution scanning, wherein the light emitted from the light emitter 41 passes through the slit set with larger slit number and is then received by the light receiver 42." Page 4, lines 21-23.

"For example, if the resolution is 600 dpi, the switch operation enhances the resolution to 1200 dpi." Page 5, lines 3-5.

"The first rotational plate 53 and the second rotational plate 54 provide different resolutions." Page 5, lines 21-23.

"The switch can switch the optoelectronic sensor set to positions with different slit number corresponding to various resolutions." Page 6, lines 5-6.

With all the above statements made, the specification does not show how resolution is adjusted; nowhere in the specification explains how the number of slits is related to or corresponds to resolution (of the scanned image).

The relationship between the number of slits and resolution is not even explained in the background of the invention.

4. Claims 1-4 rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the mechanical switching apparatus having the switch for switching between two slit sets, does not reasonably provide enablement for resolution adjustment and for achieving different resolution using the mechanical switching apparatus. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

In claim 1, "resolution adjustment" is recited in the preamble, and "for achieving different resolution" is recited at the end of the claim.

For an explanation on why the specification does not provide enablement for "resolution adjustment" and "achieving different resolution", please refer to the discussion for the specification, addressed in section 3.

Claims 2-4 are rejected as being dependent upon the rejected claim 1.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Pan (U.S. Patent No. 5,182,450) discloses a handheld image scanner with automatic movement control, employing a rotary plate (9) (Fig. 5 and col. 5, lines 45-52).

Schlack et al. (U.S. Patent No. 5,392,447) discloses an image-based electronic pocket organizer with integral scanning unit, wherein an optical encoder unit 45 generates encoding signals in accordance with the rotation of the axle 50 that correspond to the movement of the organizer over a surface, **the encoding signals produced by the optical encoder unit 45 are used to clock the operation of the linear electronic scanning unit so that a line of image data is generated as the organizer is moved a predetermined distance over the surface** (Fig. 3, lines 31-40).

Haga (U.S. Patent No. 6,058,224) discloses a manual scanning type image input device having a positional encoder.

Kinoshita et al. (U.S. Patent No. 5,829,893) discloses a portable printing device employ a rotary encoder (90 in Fig. 11).

Ogasawara et al. (U.S. Patent No. 5,402,251) discloses an image reading apparatus with a separated scanner, the scanner having a rotary plate (40 in Fig. 4).

Takasu et al. (U.S. Patent No. 5,083,218) discloses a hand-held image reading apparatus having a rotary encoder (23).

Abe et al. (Japanese Application Publication No. 01-229912) discloses an incremental-type encoder.

Suzuki (Japanese Application Publication No. 2002-081962) discloses a rotary angle detector.


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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (571) 272-7407. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cheukfan Lee
September 26, 2005


Cheukfan Lee